

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendments and discussion presented herein.

1. Allowability of Claim 4.

The Applicant notes with appreciation the Examiner's determination that Claim 4 would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims.

2. Rejection of Claims 3 and 4 under 35 U.S.C. §112.

Claims 3 and 4 have been objected to due to informalities which make the meaning unclear, to which a corrective suggestion has been made by Examiner.

Claim 3 and 4. These claims have been amended as according to Examiner suggestions.

3. Rejection of Claims 1-3 and 5-8 under 35 U.S.C. §102(b).

Claims 1-3 and 5-8 have been rejected under 35 U.S.C. §102(e) based on the patent of Alexander Gelbman (U.S. Pat. No. 6,753,830).

After carefully considering the grounds for rejection the Applicant responds as follows.

Support is lacking for the anticipation rejection of these claims. The elements described by the relied-upon reference do not comport to the elements recited in Applicants claims. Even when considering the Gelbman '830 reference from a high-level view there exist intractable differences with Applicants recited invention.

It is clear that Gelbman describes a display device, "label", having integral electronics (i.e. term "electronic label", abstract, FIG. 2-4, and throughout specification). The device of Gelbman '830 is structurally different and utilizes different operating principles. For example the display of Gelbman '830 is programmed using grids of

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

electrodes on opposing sides of a region of electronic ink.

In the claimed embodiment of Applicant's invention, the media does not require any electronics, furthermore it does not even require incorporation of electrode grids. It is well known that electrode grids provide row-column selections of areas of a display, whether it be LCD, eInk, OLED, and so forth. Within Applicant's invention there is no need for row-column selection within the media. A background electrode on the media is held at a voltage potential whereas an electrode array on the programming device then sweeps across the surface of the media to set the static optical state of the electronic ink. This is in stark contrast with Gelbman '830 which provides the grids for programming the eInk and since the individual row and column lines in the grid must be modulated and multiplexed, embeds complex control electronics within his electronic display "label".

Although Applicant's invention as claimed does not read on the cited reference the Applicant has amended the claims to more clearly illustrate the distinctive aspects.

Claim 1. This is an independent claim describing a media with rewritable surfaces. A number of incorrect statements have been put forth in support of this rejection.

ELEMENTS IN REFERENCE DO NOT COMPORT WITH CLAIM ELEMENTS

The "*first electrode*" recited in Claim 1 has been equated to the "*activation grid*" of Gelbman, however it is apparent that these structures are different and operate by different principles, as is brought out in the remainder of Claim 1.

Considered in more detail, the "*self-contained display*" (Col. 2, line 58) taught by Gelbman is configured with *activation grid(s) for activating said electronic ink* (Col. 3, line 29) which clearly provide a row-column matrix coupled to an electronic circuit within the media for changing the state of the display at the junction of row and column grid lines. The activation "grid" thus of course comprises numerous separate row and

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

column electrodes which must be driven by voltages from the attached electronic circuits to activate the display elements. By contrast, the Applicant describes "*a first electrode*" over which the electronic ink is deposited.

NOT ALL CLAIM LIMITATIONS ARE MET BY REFERENCE

Original Claim 1 describes that programming of the display takes place in response to the use of "*pixel electrodes*" contained on a "*programming device*". Ergo this embodiment of Applicant's media is not self-contained, as is required by the teaching of Gelbman. Gelbman receives information, such as over an RF link, which the electronics in the self-contained display can write to the electronic ink via the row-column grid of electrodes; BUT the display pixels of the cited reference ARE NOT not controlled by external electronics.

DIFFERENT OPERATING PRINCIPLES

The difference between Claim 1 and the teachings of Gelbman '830 are critical differences underscoring differences in the inventive object and operating principles. Creating a media according to Gelbman '830 requires creating a very complex multilayered sandwich of electronic drive circuits, control circuits, communication circuits, memory storage circuits and the like. If the device could be produced at all by today's standards (which is very doubtful - especially in view of a lack of disclosure of layer composition or interconnection), it would not be cost-effective. The label of Gelbman can display information of its own choosing, or only the information received from an external source. In fact, when Gelbman describes a "dumb label" he is referring to a label that does not determine on its own what it is to display (see Col. 2, Lines 20-24). All of Gelbman's devices require the use of embedded circuits for providing control, communication, display memory, display control, as well as multiplexing. It is interesting to realize that the circuits in the media of Gelbman must drive a huge number of row and column lines. Providing 300 DPI resolution over the surface of a CD would require connecting to and controlling approximately 1500 rows lines and 1500 column lines.

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

The rewritable media claimed by the Applicant does not require electronics to be embedded in the media. As it has no electronics it does not communicate data with external sources, such as a so-called "activator module", (see Col. 5, Lines 8-11): *"The signals sent by the activator module are used by the electronic label to address specific pixels or segments of the electronic label to form the human or machine readable indicia 14."*

By contrast when coupled to the external programming device the surface, or surfaces, of Applicant's media are rewritten with new printed material by pixel electrodes in the programming device. The applicant shows an example of a pixelated electrode 40 in FIG. 2 and 3. The pixels of electronic ink of the media are programmed in response to the electrode bar passing over the media with the a voltage field generated between each pixel and the first electrode embedded in the media. Applicant's invention operates according to different objects and operating principles which underscore the structural differences recited in the claims at issue.

It is well settled that for anticipation under 35 USC 102, the anticipating reference must show all the elements of the claim. As the apparatus of Gelbman '830 is not configured with an electrode and display structure which allows it to be programmed in response to the operation of an external electrode array it is improperly applied against Claim 1 and its progeny.

AMENDED CLAIM RECITES FURTHER DISTINCTION

In order to bring out these aspects with greater clarity, the Applicant has amended Claim 1, wherein the cited reference is even less applicable. Applicant added the item of *"a background electrode contact"* which is *"coupled to said first electrode and configured for receiving a bias voltage upon physical contact with an external programming device"*. This element is inherent in the original claim 1 as the optical states are programmed by *"pixel electrodes presenting voltage in relation to said first electrode"*, yet this makes the statement explicit. Applicant's original Claim 3 already describes one embodiment of this electrode contact being *"to areas near the spindle*

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

hole or the periphery of the media". There is no such structure within the Gelbman teachings, nor would such a structure be operable with the activations grids utilized by Gelbman for its self-contained driving of the display.

In addition, Applicant has more clearly described how the media is configured for being programmed: *"wherein allowing areas of said electronic ink [[to]] are configured to be set to one of at least two optical states by a second an electrode array of [[a]] the external programming device into which said media is received, said electrode array having a plurality of pixel electrodes presenting a sufficient voltage[[s]] field in relation to said first electrode, thereby to change the optical state of said electronic ink thus printing a rewritable label on said media."* It can be seen in these changes that the second electrode is referred to more accurately as "an electrode array" wherein the optical state of the electronic ink in the media is set directly in response to the "voltage fields" applied in relation to the first electrode. There is no correspondence between these claim elements and those found in the relied up Gelbman reference.

For a reference to anticipate in terms of §102, every element of the claimed invention must be identically shown in a single reference. Diversitech Corp. v. Century Steps, Inc. 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed.Cir. 1988). These elements must be arranged as in the claim under review, Linderman Maschinenfabrik v. American Hoist & Derrick Co. 730 F.2d 1452, 1458, 221 USPQ 481,485 (Fed.Cir. 1984).

Therefore, Claim 1 recites elements which are not found in the teachings of Gelbman, wherein Claim 1 and the claims which depend therefrom are not anticipated by the relied-upon reference.

Claims 2-3. Claims 2-3 should also be considered allowable because, being dependent from a base claim (Claim 1) shown above to be allowable, *a fortiori*, they too should be considered allowable. However, Claim 3 clearly has its own basis for avoiding the Gelbman reference, as Gelbman does not describe a conductor on the

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

media; and it can be readily seen that Gelbman does not control its display by creating "create voltage fields between said first and second electrodes for programming the electronic ink state", wherein there is no need for such as structure.

Claims 5-8. A number of intractable shortcomings exist with the support for the rejection based on the Gelbman '830 reference. The elements of the cited reference do not equate to those of the claim, the operating principles are clearly distinct, and not all claim elements are taught by the reference.

ELEMENTS IN REFERENCE DO NOT COMPORT WITH CLAIM ELEMENTS

The device of Gelbman '830 does not provides a base member having "*at least one contact on said base member configured for making contact with a first electrode within the media*". Furthermore, Gelbman '830 does not describe the use of an electrode array that is separate from the media, yet held in "close proximity". Gelbman only describes a media having the active layers which are described throughout and which communicate signals between the layer and the remote activator.

NOT ALL CLAIM ELEMENTS ARE TAUGHT

Gelbman '830 has no description of a contact on the media for accessing an underlying background electrode layer, as recited in Applicants Claim 5. Gelbman '830 further has no description of synchronizing the voltage modulation of the elements of the "*electrode array in response to the relative motion between said electrode array and said media*", as described in Claim 5. Gelbman '830 operates according to different operating principles to which these aspects do not apply.

Claims 6 - 9. Dependent Claims 6 - 9 depend from Claim 5, which has been shown to overcome the reference, wherein dependent Claims 6 - 9 should be considered *a fortiori* allowable. Furthermore, these claims provide distinctions in their own right over the cited reference. In Claim 6-8, the mechanism for providing the

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

“relative motion” described in claim 5 is provided by a CD drawer, claimshell, and movable labeling device - these are not described by Gelbman in this relative motion context with the other limitation of Claim 5.

Therefore, Applicant has shown that the relied upon reference does not anticipate independent Claims 1 and 5, wherein these claims and the claims which depend therefrom should be considered allowable, and the rejection withdrawn.

4. Amendment of Claims 1, 3 and 4.

Claim 1. This claim was amended to bring out aspects of the invention with greater clarity. Support is found in the specification and drawings, including but not limited to the following:

paragraph 28: *“A housing 32 is shown with a tapered spindle 34 extending from a distal end for insertion within a central aperture within a media 36. The proximal end is optionally configured with a combination tensioner and **background electrode contact 38**, which retains the media in the proper orientation with an **electrode array 40**, and can be used to make contact with the opposing electrode retained beneath the electrically programmable pixels, such as the elnk.”*

paragraph 3: *“The system utilizes elnk, or another form of non-volatile display programmed with **voltage field**, retained on a media in combination with an electrode plane, that when utilized with a writing device containing a set of electrodes and a connection for the electrode plane allow setting the pixels of the elnk to a desired state, thus writing on the media.”*

Claims 3 and 4. These claims were amended according to Examiner suggestions.

Appl. No.: 10/612,221
Amdt. Dated: December 28, 2004
Off. Act. Dated: June 29, 2004

5. Extension of Time Petition.

The Applicant has enclosed a petition for a three-month extension of time to respond to the Office Action and has enclosed the appropriate extension petition fee. Applicant apologizes for the delay, which was caused by not properly calendaring the office action when received.

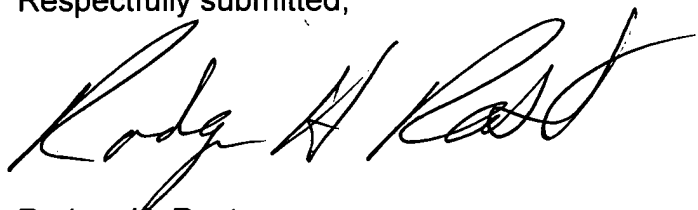
6. Conclusion.

Each of these presently pending claims in this application are believed to be in immediate condition for allowance.

The Applicant respectfully requests a response/interview (email/phone) with the Examiner to clarify any issues that arise upon examination on the merits of the present application, if an allowance of all claims does not appear forthcoming.

Date: Dec. 28, 2004

Respectfully submitted,



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